IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: MASARU MIZUTANI	DOCKET: 6116.61001
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CONFIRMATION NO.: 5946

TITLE: POOL ON THE SEA USING DEEP-SEA WATER AND ITS SURROUNDING FACILITIES

Mail Stop Appeal Brief - Patents
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CERTIFICATE OF TRANSMISSION

I hereby certify that on this 22nd day of January, 2007, this correspondence is being transmitted via EFS-WEB to the U.S. Patent and Trademark Office, Patent Technology Center 3600, Art Unit 3671.

Alice B. Vanicek

Alice B. Vanicek

TO THE COMMISSIONER FOR PATENTS

REPLY BRIEF ON APPEAL

Dear Sir:

This is in response to the Examiner's Answer dated 20 November 2006.

REAL PARTY IN INTEREST

The real party in interest is Keiny Corporation by virtue of an assignment from the inventor recorded on 8/20/01 at reel 012097, frame 0529.

RELATED APPEALS AND INTERFERENCES

No related appeals or interferences are currently pending.

STATUS OF CLAIMS

Prior to final rejection, claims 1-7 were cancelled and claims 30–43 were withdrawn without prejudice. Hence, claims 8-29 and 44 are currently pending and are the subject of this appeal.

STATUS OF AMENDMENTS

No amendments were submitted after the final Office Action.

SUMMARY OF CLAIMED SUBJECT MATTER

Independent claim 8 specifies a sea-water swimming pool that includes a swimming pool structure 1 floating on a sea (Fig. 1 and page 8, lines 6-22) and means for collecting and supplying deep-sea water (Fig. 1, reference numerals 2, 2a, 2b, 5a, 5b, and 6; page 8, lines 18-25)

to the swimming pool structure 1. Surface-sea water and aquatic animals are substantially excluded from the swimming pool structure (for a structure that is designed to scare aquatic animals away from the swimming pool structure, see Fig. 1, reference numeral 10; page 13, lines 17-26; and page 14, lines 1-15; for disclosure relating to using deep-sea water exclusively, see page 3, lines 3-5; page 11, lines 13-20; and page 14, lines 21-22; for disclosure of a structure that exclusively supplies deep-sea water to the swimming pool structure, see page 12, lines 7-20 and Fig. 1, numeric references 2 and 2a) .

Dependent claim 9 states that the sea-water swimming pool further includes means for mooring 11 and 15 the swimming pool structure 1 at a fixed location (page 12, line 26 and page 13, lines 1-3) .

Dependent claim 10 specifies that the means for mooring includes an anchor 3 (Fig. 1; page 8, lines 18-22).

Dependent claims 11 and 12 state that the sea-water swimming pool includes a propulsion device 9 (Fig. 1; page 9, lines 1-4).

Dependent claim 13 specifies that the propulsion device of the swimming pool structure includes a propeller 9 (Fig. 1; page 9, lines 1-4).

Dependent claims 14 and 15 state that the sea-water swimming pool includes a plurality of extensions 10 protruding from the swimming pool structure and adapted to protect the swimming pool from attacks by sea creatures (Fig. 1; page 14, lines 9-12).

Dependent claims 16 and 17 specify that the sea-water swimming pool includes means for draining (Fig. 1, numeric references 5b and 7) the deep-sea water from the swimming pool structure (page 14, lines 21-25).

Dependent claims 18 and 19 state that the sea-water swimming pool includes a facility for enabling fishing 17 from a side of the swimming pool structure (Fig. 2; page 15, lines 21-24).

Dependent claims 20 and 21 state that the sea-water swimming pool includes means for generating and mixing air bubbles 18 into the deep-sea water supplied to the swimming pool 1 (Fig. 2 and 3; page 16, lines 15-17).

Dependent claims 22 and 23 specify a sea-water swimming pool including means for solar power generation 19 (Fig. 2; page 16, lines 21-23).

Dependent claims 24 and 25 specify a sea-water swimming pool that includes means for wind power generation 23 (Fig. 4; page 16, line 24).

Dependent claims 26 and 27 state that the sea-water swimming pool includes a sea-water desalination plant 14 (Fig. 1; page 19, lines 1-5).

Dependent claims 28 and 29 specifies that the means for collecting and supplying deep-sea water to the swimming pool structure includes a check valve which only allows an upward flow of the deep-sea water (page 17, lines 21-26).

Independent claim 44 specifies a sea-water swimming pool having a swimming pool structure 1 (Fig. 1 and page 8, lines 6-22) or 13 (Fig. 5 and page 18, lines 10-15) and means for collecting and supplying deep-sea water (Fig. 1, reference numerals 2, 2a, 2b, 5a, 5b, and 6; page 8, lines 18-25; Fig. 5, numeric references 2, 5c, and 12) to the swimming pool structure. Surface-sea water and aquatic animals are substantially excluded from the swimming pool structure (for a structure that is designed to scare aquatic animals away from the swimming pool structure, see Fig. 1, reference numeral 10; pages 13, lines 17-26; and page 14, lines 1-15; for disclosure relating to using deep-sea water exclusively, see page 3, lines 3-5; page 11, lines 13-20; and page 14, lines 21-22; for disclosure of a structure that exclusively supplies deep-sea water to the swimming pool structure, see page 12, lines 7-20 and Fig. 1, numeric references 2 and 2a) .

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

In addition to the ground of rejection made by the Examiner in the first Examiner's Answer (i.e., claims 8-29 and 44 under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement), several new grounds of rejection were made in the most recent Examiner's Answer as follows.

The Examiner has newly rejected claims 8-10, 16, 18 and 44 under 35 U.S.C. 103(a) as being unpatentable over Meilahn (U.S. Patent No. 5,762,024) in view of *Effect of Artificial Upwelling on Primary Production in Toyama Bay, Japan* by Iseki et al., *Treatment of Atopy Skin Inflammation by Deep Sea Water* by Nomura, and *High Degree of Application for Deep Sea Water in Fishing Ports* by Miyamato.

Moreover, the Examiner has newly rejected claims11-13 under 35 U.S.C. 103(a) as being unpatentable over Meilahn in view of the Iseki et al., Nomura, and Miyamato references above and further in view of Mougin (U.S. Patent No. 4,166,363).

Furthermore, the Examiner has newly rejected claim 14 under 35 U.S.C. 103(a) as being unpatentable over Meilahn in view of the Iseki et al., Nomura, and Miyamato references above and further in view of Sibinski et al. (U.S. Patent No. 2,641,221).

Additionally, the Examiner has newly rejected claims 15, 17, and 19 under 35 U.S.C. 103(a) as being unpatentable over Meilahn in view of the Iseki et al., Nomura, Miyamato, and Mougin references above and further in view of Sibinski et al. (U.S. Patent No. 2,641,221).

Also, the Examiner has newly rejected claim 20 under 35 U.S.C. 103(a) as being unpatentable over Meilahn in view of the Iseki et al., Nomura, and Miyamato references above and further in view of Puncochar (U.S. Patent No. 3,571,819).

In addition, the Examiner has newly rejected claim 21under 35 U.S.C. 103(a) as being unpatentable over Meilahn in view of the Iseki et al., Nomura, and Miyamato, and Sibiniski et al. references above and further in view of Puncochar (U.S. Patent No. 3,571,819).

In addition, the Examiner has newly rejected claims 22 and 24 under 35 U.S.C. 103(a) as being unpatentable over Meilahn in view of the Iseki et al., Nomura, and Miyamato, and further in view of O'Sullivan et al. (U.S. Patent No. 5,929,538).

In addition, the Examiner has newly rejected claims 23 and 25 under 35 U.S.C. 103(a) as being unpatentable over Meilahn in view of the Iseki et al., Nomura, Miyamato, Puncochar, Mougin, and Sibinski et al. references above, and further in view of O'Sullivan et al. (U.S. Patent No. 5,929,538).

The Examiner further has newly rejected claim 26 under 35 U.S.C. 103(a) as being unpatentable over Meilahn in view of the Iseki et al., Nomura, and Miyamato references above and further in view of Atwell (U.S. Patent No. 4,536,257).

The Examiner also has newly rejected claim 27 under 35 U.S.C. 103(a) as being unpatentable over Meilahn in view of the Iseki et al., Nomura, Miyamato, Mougin, Sibinski et al., O'Sullivan et al., and Puncochar references above and further in view of Atwell (U.S. Patent No. 4,536,257).

The Examiner also has newly rejected claim 28 under 35 U.S.C. 103(a) as being unpatentable over Meilahn in view of the Iseki et al., and Nomura references above, and further in view of Rolfson (U.S. Patent No. 3,764,015).

The Examiner also has newly rejected claim 29 under 35 U.S.C. 103(a) as being unpatentable over Meilahn in view of the Iseki et al., Nomura, Miyamato, Mougin, Sibinski et al., O'Sullivan et al., Atwell, and Puncochar references above, and further in view of Rolfson (U.S. Patent No. 3,764,015).

ARGUMENT

In response to each New Ground of Rejection beginning on Page 8 and ending on page 26 of the Examiner's Answer, the Appellant replies as follows:

The Examiner has newly rejected claims 8-10, 16, 18 and 44 under 35 U.S.C. 103(a) as being unpatentable over Meilahn (U.S. Patent No. 5,762,024) in view of *Effect of Artificial Upwelling on Primary Production in Toyama Bay, Japan* by Iseki et al., *Treatment of Atopy Skin Inflammation by Deep Sea Water* by Nomura, and *High Degree of Application for Deep Sea Water in Fishing Ports* by Miyamato.

The Appellant respectfully submits that the "swimming pool" of Meilahn is really a tank "for growing aquatic animals" (see column 1, lines 5-6). While the Examiner contends on page 25 that Meilahn's tank "meets the claim recitation because *it is capable of being swam in by a*

person or animal," such a broad interpretation of the Appellant's "swimming pool" limitation is unreasonable. By the Examiner's logic, a sewage pool, vat of acid, or oil tank would be a swimming pool because an animal or person *could* swim in it. However, if one of ordinary skill in the art were to review the aquaculture tank of Meilahn, she would not see a description or suggestion of a swimming pool. Also, all claims of the present invention now are limited to a "swimming pool" that substantially excludes "aquatic animals" to further clarify this distinction.

Moreover, Iseki et al. do not describe or suggest a swimming pool. Instead, this reference only discloses that deep seawater is artificially "upwelled" and mixed with surface water to determine effects on the biological productivity of marine ecosystems. In contrast, all claims of the present invention, as amended, now recite that surface sea water is substantially excluded from the swimming pool structure to make clear that mixing of surface water with deep-sea water does not occur as this would defeat the purpose of having a deep-sea water swimming pool.

Furthermore, Nomura does not describe or suggest treating atopy skin inflammation in a swimming pool. Nomura describes only the atopy skin inflammation treatment using deep-sea water that "is kept in the refrigerator for 1 month," whereby "[T]he patient is soaked in the deep sea water" were he "continues to bath...and wash with soap" (p. 10 of translated document provided by the Examiner). Clearly, providing a structure for soaping-up and treating skin diseases is not a normal use of a swimming pool. Moreover, a swimming pool does not contain water that has been refrigerated for a month. Actually, it is unclear from the Nomura reference (and the Examiner has provided no evidence to dispute this point) whether the patients are

soaking in deep-sea water or simply having it applied to their skin as the figures seem to suggest. Finally, one skilled in the art of swimming pool design and construction would have no motivation to look to medical literature to solve swimming pool-related problems.

Miyamoto also does not describe or suggest a swimming pool. Miyamoto discloses only a hatchery pool used to raise fish. As such, Miyamoto's pool is adapted for raising fish by including heating and cooling equipment (see pp. 9-10 of translated document provided by the Examiner) to keep the water temperature from getting to high or too low for the fish. The applicant is not aware of any swimming pool that contains such specialized equipment for both heating and cooling, nor would refrigerating swimming pool water be practical as large amounts of electricity would be consumed. Moreover, one skilled in the art of swimming pool design and construction would have no motivation to look to fish hatchery literature to solve swimming pool-related problems, especially given that the present claims have been amended to substantially exclude aquatic animals from the swimming pool structure of the invention.

Accordingly, there is no motivation or suggestion to combine the cited references to arrive at the invention recited in claims 8-10, 16, 18, and 44.

Regarding the specific arguments against the patentability of claims 8 and 44 (beginning on page 10 of the Answer), the Examiner states that "it would have been obvious to one of ordinary skill in the art of animal husbandry...to modify the means for collecting supplying [sic] shown by Meilahn '024 such that it would comprise a deep-sea water pumping system as suggested by Iseki et al...Numura...and Miyamoto....**the motivation would have been to facilitate cultivation of**

cold-water organisms in the swimming pool structure." (emphasis added). The Appellant respectfully submits that no one of ordinary skill in the art of swimming pool design or construction would be motivated to cultivate organisms in a swimming pool. Indeed, swimming pools are designed to kill or substantially minimize the cultivation of organisms (other than the swimmers) through the use of water exchange, chemicals such as chlorine, and the like. Therefore, independent claims 8 and 44 should not be obvious to one skilled in the art because there is no suggestion or motivation to combine either the deep-sea water pumping equipment used in the various aquaculture tanks with the medicinal trials of Nomura. Furthermore, all claims of the present invention substantially exclude aquatic animals and surface sea-water from the swimming pool structure as would be inherently understood by one of ordinary skill in the art of swimming pool design and construction.

Moreover, the Examiner has newly rejected claims11-13 under 35 U.S.C. 103(a) as being unpatentable over Meilahn in view of the Iseki et al., Nomura, and Miyamato references above and further in view of Mougin (U.S. Patent No. 4,166,363). Regarding the specific arguments against the patentability of claims 11-13 (beginning on page 11 of the Answer), the Examiner states that "the motivation would have been to facilitate relocation of the swimming pool structure within a body of water." However, none the cited references disclose a swimming pool structure, including a swimming pool structure containing deep-sea water as claimed. Moreover, since none of the cited art discloses or suggests the deep-sea water swimming pool of independent claim 8, claims 11-13 are not obvious because none of the cited art describes or suggests the claimed deep-sea water swimming pool that further includes a propulsion device.

The Examiner has newly rejected claim 14 under 35 U.S.C. 103(a) as being unpatentable over Meilahn in view of the Iseki et al., Nomura, and Miyamato references above and further in view of Sibinski et al. (U.S. Patent No. 2,641,221). Regarding the specific arguments against the patentability of claim 14 (beginning on page 12 of the Answer), the Examiner states that Sibinski et al. "expressly teaches the use of a plurality of extensions (16, 17 or 18) protruding from a body **adapted to protect the body from attacks by fish**." (emphasis added). However, pins 16, 17 and 18 of Sibinski et al.'s invention are described on lines 43-44 in column 2 to "impede the progress of fish" that are swimming upwardly toward the dam's edge. On the other hand, the present invention, as described in paragraph [0057]in the specification, relates to "extensions 10 [which] may be provided on the bottom surface of the pool 1 to protect the pool from attacks by sea creatures." In other words, Sibinski et al. teach nothing about their plurality of pins being "adapted to protect the swimming pool from attacks by sea creatures" as claimed by the Appellant. Furthermore, no reference cited in rejection of this claim, including Sibinski et al., describes or suggests a swimming pool structure. Instead, Sibinski et al. disclose a "fish stop for dams" (title). A fish stop for dams is not analogous art for swimming pool construction.

Additionally, the Examiner has newly rejected claims 15, 17, and 19 under 35 U.S.C. 103(a) as being unpatentable over Meilahn in view of the Iseki et al., Nomura, Miyamato, and Mougin references above and further in view of Sibinski et al. (U.S. Patent No. 2,641,221). Regarding the specific arguments against the patentability of claims 15, 17 and 19 (beginning on page 13 of the Answer), the Examiner provides no motivation or suggestion for arriving at the combinations recited in claims 17 or 19. Regarding the motivation given for arriving at claim 15, Sibinski et al. teach nothing about their plurality of pins being "adapted to protect the swimming

pool from attacks by sea creatures" as claimed by the Appellant. Indeed, the use of pins to impede the swimming of fish near freshwater dams in no way suggests or motivates one of ordinary skill in the art to attach an appendage to swimming pool structure harboring deep-sea water for protection against attacks by sea creatures.

Also, the Examiner has newly rejected claim 20 under 35 U.S.C. 103(a) as being unpatentable over Meilahn in view of the Iseki et al., Nomura, and Miyamato references above and further in view of Puncochar (U.S. Patent No. 3,571,819). Regarding the specific arguments against the patentability of claim 20 (beginning on page 15 of the Answer), the Examiner states that one skilled in the art would be motivated to combine the Puncochar with the other cited references "to include means for dissolving oxygen as desired." However, despite the Examiner's assertion, Puncochar does not disclose mixing bubbles into *deep-sea* water. Moreover, the Puncochar swimming pool consists of screens that allow surface sea-water to freely diffuse in and out of the pool, and, accordingly, it is completely devoid of any suggestion to use deep-sea water as the same would instantly mix with the surface water (thereby defeating the purpose of the present invention). Therefore, there is no motivation or suggestion to provide means for generating and mixing air bubbles into deep-sea water of a swimming pool structure as claimed.

In addition, the Examiner has newly rejected claim 21under 35 U.S.C. 103(a) as being unpatentable over Meilahn in view of the Iseki et al., Nomura, and Miyamato, and Sibiniski et al. references above and further in view of Puncochar (U.S. Patent No. 3,571,819). Regarding the specific arguments against the patentability of claim 21 (beginning on page 16 of the Answer), the Examiner again asserts that all claim limitations are described or suggested by the cited art.

However, Puncochar does not disclose mixing bubbles into *deep-sea* water. Moreover, the Puncochar swimming pool consists of screens that allow surface sea-water to freely diffuse in and out of the pool, and, accordingly, it is completely devoid of any suggestion to use deep-sea water as the same would instantly mix with the surface water (thereby defeating the purpose of the present invention). Therefore, there is no motivation or suggestion to provide means for generating and mixing air bubbles into deep-sea water of a swimming pool structure as claimed.

In addition, the Examiner has newly rejected claims 22 and 24 under 35 U.S.C. 103(a) as being unpatentable over Meilahn in view of the Iseki et al., Nomura, and Miyamato, and further in view of O'Sullivan et al. (U.S. Patent No. 5,929,538). Regarding the specific arguments against the patentability of claims 22 and 24 (beginning on page 17 of the Answer), the Examiner states that O'Sullivan teaches the known use of power generation by solar and wind resources to operate domestic and industrial facilities." Aside from the fact that the relevant art for the present invention pertains to swimming pools rather than power generation, the multi-mode power processor of O'Sullivan is a "an AC power processor for delivering power to a load in coordination with an energy storage device and an AC power source" (see, for example, claim 1). As such, it provides neither motivation contended by the Examiner (i.e., "a renewable energy system capable of use at remote locations and for reducing operating costs") because an AC power source likely would not be available at a "remote location" and a hybrid energy system is likely to be more expensive than a single source (such as a diesel generator).

In addition, the Examiner has newly rejected claims 23 and 25 under 35 U.S.C. 103(a) as being unpatentable over Meilahn in view of the Iseki et al., Nomura, Miyamato, Puncochar, Mougin,

and Sibinski et al. references above, and further in view of O'Sullivan et al. (U.S. Patent No. 5,929,538). Regarding the specific arguments against the patentability of claims 23 and 25 (beginning on page 18 of the Answer), the Examiner again contends that all limitations of these claims are met because O'Sullivan multi-mode power processor motivates one of skill in the art to add means for generating solar or wind power to the claimed swimming pool. O'Sullivan's invention is a "an AC power processor for delivering power to a load in coordination with an energy storage device and an AC power source" (see, for example, claim 1). As such, it provides neither motivation contended by the Examiner (i.e., "a renewable energy system capable of use at remote locations and for reducing operating costs") because an AC power source likely would not be available at a "remote location" and a hybrid energy system is likely to be more expensive than a single source (such as a diesel generator).

The Examiner further has newly rejected claim 26 under 35 U.S.C. 103(a) as being unpatentable over Meilahn in view of the Iseki et al., Nomura, and Miyamato references above and further in view of Atwell (U.S. Patent No. 4,536,257). Regarding the specific arguments against the patentability of claim 26 (beginning on page 19 of the Answer), the Examiner contends that one of ordinary skill in the art would have been motivated to provide a potable source of water on the pool structure for consumption. However, none of the cited art discloses or suggests a deep-sea water swimming pool as claimed herein. Therefore, including a desalination system with the deep-sea water swimming pool as claimed in claim 26 would not be obvious.

The Examiner also has newly rejected claim 27 under 35 U.S.C. 103(a) as being unpatentable over Meilahn in view of the Iseki et al., Nomura, Miyamato, Mougin, Sibinski et al., O'Sullivan et al., and Puncochar references above and further in view of Atwell (U.S. Patent No. 4,536,257). Regarding the specific arguments against the patentability of claim 27 (beginning on page 20 of the Answer), the Appellant respectfully directs the Board's attention to the responses already made above against the rejection of claims 23, 25, and 26.

The Examiner also has newly rejected claim 28 under 35 U.S.C. 103(a) as being unpatentable over Meilahn in view of the Iseki et al., and Nomura references above, and further in view of Rolfson (U.S. Patent No. 3,764,015). Regarding the specific arguments against the patentability of claim 28 (beginning on page 22 of the Answer), the Examiner cites Rolfson for of the use of check valves, with the asserted motivation being to prevent the reversal of flow of water. As stated by the Examiner, Rolfson's disclosure is of a valve in an air-supply tube of a ballast tank. However, it is unknown why one skilled in the art of swimming pool construction would turn to Rolfson's "Apparatus For Confining Floating Pollutants" to install a check valve in a means for collecting deep-sea water as claimed by the Appellant. Indeed, Rolfson's buoyant and flat platforms have nothing to do with collection of deep-sea water. Moreover, the check valve of Rolfson's air pipe is used for a substantially different purpose than that of the Appellant's water collection pipe check valve, in that Rolfson's check valve is designed to prevent the flow of water altogether into the air pipe (and not to control the flow of water in one direction).

The Examiner also has newly rejected claim 29 under 35 U.S.C. 103(a) as being unpatentable over Meilahn in view of the Iseki et al., Nomura, Miyamato, Mougin, Sibinski et al., O'Sullivan et al., Atwell, and Puncochar references above, and further in view of Rolfson (U.S. Patent No. 3,764,015). Regarding the specific arguments against the patentability of claim 29 (beginning on page 23 of the Answer), the Appellant respectfully directs the Board's attention to the responses already made above against the rejection of claims 25 and 28.

In response to the arguments made in the Examiner's Answer regarding the rejection of claims 8-29 and 44 under 35 U.S.C. 112, the Appellant responds as follows:

The Appellant respectfully submits that the exclusion of surface-sea water and aquatic animals from the swimming pool structure of the invention is explicitly and/or implicitly disclosed in the specification. Moreover, given the knowledge of one of ordinary skill in the art and the embodiments and advantages disclosed in Appellant's specification, the exclusion of surface-sea water and aquatic animals from the swimming pool structure is an inherent functional attribute of the invention.

In the Examiner's Answer beginning on page 24 of the Answer, the Examiner states that the limitations above are not supported by the disclosure and further states that "the drawings do not show means for preventing the ingress of surface seawater into the pool structure in every reasonable manner." In response, clearly the pool structure as shown in, for example, Fig. 2 of the application is designed to substantially exclude surface water (tidal waves or other extreme

examples excepted). Furthermore, there is no requirement under the law of which the Appellant is aware that the drawings show "every reasonable manner" of preventing the ingress of surface seawater into the pool. The drawing in Fig.2 shows a pool structure above the sea that effectively prevents surface water ingress; that is enough to support what is claimed.

As stated in the *Manual of Patent Examination Practice*, an objective standard for determining compliance with the written description requirement is, "does the description clearly allow persons of ordinary skill in the art to recognize that he or she invented what is claimed." *In re Gosteli*, 872 F.2d 1008, 1012; 10 USPQ2d 1614, 1618 (Fed. Cir. 1989). Under *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64; 19 USPQ2d 1111, 1117 (Fed. Cir. 1991), to satisfy the written description requirement, an applicant must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention, and that the invention, in that context, is whatever is now claimed.

The subject matter of the claim need not be described literally (i.e., using the same terms or *in haec verba*) in order for the disclosure to satisfy the description requirement. MPEP 2163.02. Indeed, to comply with the written description requirement of 35 U.S.C. 112, first paragraph (or to be entitled to an earlier priority date or filing date under 35 U.S.C. 119, 120, or 365(c)), each claim limitation must be expressly, implicitly, or inherently supported in the originally filed disclosure. MPEP § 2163.05.

The recitation of "wherein surface-sea water and aquatic animals are substantially excluded from said swimming pool structure" in independent claims 8 and 44 is explicitly and/or implicitly

disclosed in the application as filed. Examining the "surface-sea water exclusion" limitation first, page 3, lines 3-5, explicitly discloses "It is an object...to provide a pool on the sea which uses pure and clean deep-sea water, and provides a deep-sea surround environment." By definition, "pure and clean" deep-sea water cannot contain surface-sea water lest it lose its purity and cleanliness. Moreover, the specification makes clear the advantages of using deep-sea water are based on its unique purity and cleanliness characteristics, such as "it preferably contains few parasitic species...few microorganisms, and is comparatively free of heavy metals and artificial pollutants" (page 11, lines 16-19). Furthermore, Appellant's specification reinforces the exclusive use of deep-sea water by warning "if the supplied deep-sea water is not maintained fresh as all times, it loses its deep-sea water characteristics" (page 14, lines 21-22). Hence, adding surface-sea water to the swimming pool of the invention would only serve to dilute or destroy the purity and cleanliness rational for using deep-sea water. Finally, the exclusion of surface-sea water is implicitly disclosed in that Appellant's application specifies *nothing but deep-sea water* for use within the swimming pool structure of all embodiments of the invention. Indeed, all structures that supply water to the swimming pool exclusively supply deep-sea water (for example, see page 12, lines 7-20, and Fig. 1, numeric references 2 and 2a).

Regarding the "aquatic animal exclusion limitation," a structure that is designed to scare aquatic animals away from the swimming pool structure is explicitly disclosed in Fig. 1 at reference numeral 10. Furthermore, the specification discloses that "there is a possibility that [the pool] may be attacked by sharks or other sea creatures that tend to be aggressive. It would be desirable, therefore, to provide shields on the bottom surface of the pool...so that safety of the pool can be maximized" (page 13, lines 17-26). Accordingly, the specification discloses providing

"extensions 10" and "a device for generating frequencies which sea live, such as sharks, hates" for the purpose of frightening away sea creatures (page 14, lines 1-15). Thus, it is clear that the Appellant discloses both the desirability of excluding aquatic animals from the swimming pool structure and structural members that accomplish that objective.

In addition to being explicitly and/or implicitly disclosed, the recitation of "wherein surface-sea water and aquatic animals are substantially excluded from said swimming pool structure" in independent claims 8 and 44 also is inherently taught in the application as filed. First, as a practical matter, it would make no sense to pump or use surface water in the swimming pool of the invention because the benefits of specifically using deep-sea water would be diluted or lost (see, for example, page 14 "if the supplied deep-sea water is not maintained fresh as all times, it loses its deep-sea water characteristics" (lines 21-22) and page 11, line 26 though page 12, lines 1-2 "The pool on the sea according to the present invention aims to effectively use such deep-sea water for these unique characteristics"). Indeed, this is why the Appellant disclosed *nothing but deep-sea water* for filling and use in all embodiments of the invention. In view of the fact that every embodiment of the claimed swimming pool utilizes only deep-sea water and the many benefits and reasons for using deep-sea water, it defies logic that one of ordinary skill in the art would understand the specification to teach anything other than substantially the exclusive deep-sea water use.

Furthermore, the Appellant's amendment reciting the "substantial exclusion of aquatic animals" merely excludes elements that are inherently not found in the normal use of a swimming pool. In normal use, a swimming pool inherently functions to exclude undesirable organisms (for

example, through filtering and the use of chemicals). Similarly, the exclusion of marine life from a swimming pool structure is an inherent or normal swimming pool use. Moreover, if aquatic animals are sucked through a pump, the pump is likely to clog or break. Thus, the substantial exclusion of aquatic animals from the swimming pool structure would be inherently understood by one of ordinary skill in the art of swimming pool design and construction in order to avoid this undesirable consequence.

In other words, the existing written disclosure and drawings are sufficient for one of ordinary skill in the art to convey a reasonable understanding that the invention specifically teaches the substantially exclusive use of deep-sea water and swimming pool structure substantially devoid of aquatic animals.

In view of the foregoing, the Appellant respectfully requested that the rejections of the claims be reversed in their entirety.

Respectfully submitted,

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CLAIMS APPENDIX

8. A sea-water swimming pool, comprising:

a swimming pool structure floating on a sea; and

means for collecting and supplying deep-sea water to the swimming pool structure, wherein surface-sea water and aquatic animals are substantially excluded from said swimming pool structure.

9. The sea-water swimming pool of Claim 8, further comprising means for mooring said swimming pool structure at a fixed location.

10. The sea-water swimming pool of Claim 9, wherein said means for mooring includes an anchor.

11. The sea-water swimming pool of Claim 8, further comprising a propulsion device.

12. The sea-water swimming pool of Claim 9, further comprising a propulsion device.

13. The sea-water swimming pool of Claim 12, wherein said propulsion device includes a propeller.

14. The sea-water swimming pool of Claim 8, further comprising a plurality of extensions protruding from said swimming pool structure and adapted to protect the swimming pool from attacks by sea creatures.

15. The sea-water swimming pool of Claim 12, further comprising a plurality of extensions protruding from said swimming pool structure and adapted to protect the swimming pool from attacks by sea creatures.

16. The sea-water swimming pool of Claim 8, further comprising means for draining said deep-sea water from the swimming pool structure.

17. The sea-water swimming pool of Claim 15, further comprising means for draining said deep-sea water from the swimming pool structure.

18. The sea-water swimming pool of Claim 8, further comprising a facility for enabling fishing from a side of said swimming pool structure.

19. The sea-water swimming pool of Claim 17, further comprising a facility for enabling fishing from a side of said swimming pool structure.

20. The sea-water swimming pool of Claim 8, further comprising means for generating and mixing air bubbles into the deep-sea water supplied to said swimming pool.

21. The sea-water swimming pool of Claim 19, further comprising means for generating and mixing air bubbles into the deep-sea water supplied to said swimming pool.

22. The sea-water swimming pool of Claim 8, further comprising means for solar power generation.

23. The sea-water swimming pool of Claim 21, further comprising means for solar power generation.

24. The sea-water swimming pool of Claim 8, further comprising means for wind power generation.

25. The sea-water swimming pool of Claim 23, further comprising means for wind power generation.

26. The sea-water swimming pool of Claim 8, further comprising a sea-water desalination plant.

27. The sea-water swimming pool of Claim 25, further comprising a sea-water desalination plant.

28. The sea-water swimming pool of Claim 8, wherein said means for collecting and supplying deep-sea water to the swimming pool structure includes a check valve which only allows an upward flow of the deep-sea water.

29. The sea-water swimming pool of Claim 27, wherein said means for collecting and supplying deep-sea water to the swimming pool structure includes a check valve which only allows an upward flow of the deep-sea water.

44. A sea-water swimming pool, comprising:

a swimming pool structure; and

means for collecting and supplying deep-sea water to the swimming pool structure, wherein surface-sea water and aquatic animals are substantially excluded from said swimming pool structure.

EVIDENCE APPENDIX

Not applicable.

RELATED PROCEEDINGS APPENDIX

Not applicable.